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JPRS

Card 2/2

NEKRASOV, O. A., kand. tekhn. nauk; SHEVCHENKO, V. V., kand tekhn nauk;  
REKUS, G. G., kand. tekhn. nauk

Calculation of the heating of asynchronous machines using  
a thermal parameter method. Izv vyz ucheb zav; energ 7  
no. 1:40-46 Ja '64. (MIRA 17:5)

1. Moskovskiy khimiko-tehnologicheskiy institut. Predstavlena  
kafedroy elekrotekhniki i elektroniki.

REKUS, G.G., inzh.

Combined capacitor start system of auxiliary motors for rectifier locomotives. Izv.vys.ucheb.zav.; mashinostr. no.2:144-157 '61.  
(MIRA 14:3)

1. Moskovskoye vyssheye tekhnicheskoye uchilishche imeni Baumana.  
(Electric locomotives)

REKUS, G.G., kand.tekhn.nauk (Moskva)

Heating of three-phase asynchronous motors in single-phase operation  
containing capacitors. Elektrichestvo no.3:80-82 Mr '64.  
(MIRA 17:4)

REKUS, G.G., kand. tekhn. nauk (Moskva); CHIRKOV, M.T., inzh. (Moskva)

Speed control ranges of an induction motor with frequency regulation. Elektrichestvo no.5:77-81 My '64. (MIRA 17-6)

REKUS, G.G., inzh.

Use of auxiliary condenser machinery on commercial frequency a.c.  
electric locomotives. Vest. elektroprom. 32 no.3:60-64 Mr '61.  
(MIRA 15:6)

(Electric locomotives)

REKUS, G.G. (Moskva)

Start of a condenser motor with resistance shunted capacitance.  
Elektrichestvo no.8:73-76 Ag '62. (MIRA 15:7)  
(Electric motors, Induction)

RfKUG, G.G., kand. tekhm. rank

Power indices of asynchronous motors operating as single-phase  
condenser motors. Elektrotehnika 35 no. 5:46-49 Ny'64  
(MTRA 17tS)

8(5), 12(3)

AUTHORS:

Nekrasov, Oleg Alekseyevich, Candidate of SOV/161-58-4-19/28  
Technical Sciences, Senior Scientific Associate of the Chair,  
Rekus, Grigoriy Gavrilovich, Assistant

TITLE:

On the Condenser-auxiliary-machines of Alternating Current  
Locomotives With Rectifiers (O kondensatornykh vspomogatel'nykh  
mashinakh elektrovozov peremennogo toka s vpryanitelyami)

PERIODICAL:

Nauchnyye doklady vysshyey shkoly. Elektromekhanika i avtomatika,  
1958, Nr 4, pp 150 - 160 (USSR)

ABSTRACT:

In electro-locomotive construction in the USSR, asynchronous  
condenser-motors and three phase induction motors (fed from a  
phase splitter (Ref 3)) are used for driving the auxiliary units  
of alternating current locomotives with the industrial frequency.  
Some results are given here of the examination of auxiliary  
condenser motors, in order to determine the most economical,  
reliable, and simple circuit diagram. The following units belong  
to these auxiliary machines: Motor-ventilators, motor-compressors,  
motor-cooling water pumps and motor-generators of the control  
circuits. The working conditions of these auxiliary motors of the  
single-phase direct-current locomotives are very difficult. On the  
current take-off devices of the locomotives, voltage fluctuations

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of the nominal value are allowed within the limit of from 0.75-1.1, and the range of outside temperature is limited between +40° ~ -50° Celsius. The examination carried out here showed that the installed power of the condensers requires a system of auxiliary condenser-motors and a hydraulic drive of the compressors for starting from the cold, since no switched-off condensers are available if all motors are working. Applied to the electro-locomotive of the NC-type, it is shown in table 1 that this allows reducing the total capacity by 2.2 times, at simultaneous improving the starting properties of all motors. At the same time, the compressors are protected against increased wear during starting at voltages coming close to the nominal voltages. The circuit diagram developed here is illustrated and described on an example in figure 2. The examination showed that with the mentioned circuit diagram and drive respectively, any motor can be started and stopped, independent of the condition of the other motors. When starting all motors in succession, all contactors close with the exception of one. With the circuit diagram for the condenser-motors of the electro-locomotive of the NO-type, 8 contactors must be switched-off by 8 relays, for starting all auxiliary motors. The

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circuit is simple and reliable. The control circuit can also be simple and reliable, especially in the case of contactless relays being used. There are 5 figures, 1 table, and 9 Soviet references.

ASSOCIATION:

1) Kafedra elektricheskogo transporta Moskovskogo energeticheskogo instituta (Chair for Electrical Transportation at the Moscow Institute of Power Engineering), 2) Kafedra teplovogo kontrolya i avtomatiki Moskovskogo energeticheskogo instituta (Chair for Heat Control and Automation at the Moscow Institute of Power Engineering) (1. Nekrasov; 2. Rekus)

SUBMITTED:

August 2, 1958

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REKUS, G

AUTHORS: Nekrasov, Oleg Alekseyevich, Candidate of Technical Sciences Senior Scientific Worker at the Chair of Electric Transport at the Moscow Institute of Power Engineering, Rekus, Grigoriy Gavrilovich, Assistant at the Chair of Electrical Engineering at the Moscow Technical University imeni Bauman

TITLE: On a Starting-Up Circuit of a Condenser Induction Motor  
(Ob odnoy skhemе pуска asinkhronnogo kondensatornogo elektro-dvigatelya)

PERIODICAL: Nauchnyye doklady vysshey shkoly, Elektromekhanika i avtomatika, 1958, Nr 1, pp. 148 - 157 (USSR)

ABSTRACT: A method is investigated for the increase of the starting-up torque of a condenser motor by shunting the starting-up capacity by an effective resistance, which is disconnected after starting. This starting-up circuit is free of complicated appliances and in a number of cases permits to reduce the starting-up capacity. Two circle diagrams of a two-phase motor are given. One shows the moment of connecting, if a given capacity is connected with the condenser phase. The second shows the effect of shunting the capacity by an effective resistance. A compari-

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On a Starting-Up Circuit of a Condenser Induction Motor SOV/161-58-1-19/33

son of the two diagrams shows, that the shunting of the capacity by an effective resistance leads to a more symmetric operation of the motor and an increase of the starting-up torque. The computations show that an optimum increase of the starting torque by shunting the condenser is attained at a starting capacity not exceeding a certain value. If the capacity is greater the effect is inverted or it does not occur at all. The greater the starting capacity, the smaller will be the effect caused by the connection of the effective resistance. It will tend towards zero at a certain capacity. The connection of an effective resistance results in an increase of the starting torque by a factor of 1,5 as compared to that developed by the motor without a starting resistance. As a summary it is stated: 1) It is favorable to use a resistance shunting the condenser in starting induction motors. If conditions are selected in a favorable manner this results in a reduction of the starting capacity by a factor of 2 or 3 and an increase of the starting torque by a factor of from 1,5 to 2,5. 2) The circuit incorporating a starting resistance

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can be successfully used in two-phase condenser motors. In a three-phase motor it is only applicable subject to certain restrictions, as it leads to a distortion of the moment-versus-slip curve. 3) The suggested circuit can be of interest under certain conditions, as it is simple and economical. There are 8 figures and 2 Soviet references. The publication of this article was recommended by the Kafedra elektricheskogo transporta Moskovskogo energeticheskogo instituta (Chair of Electric Transportation at the Moscow Institute of Power Engineering).

ASSOCIATION: Kafedra elektricheskogo transporta Moskovskogo energeticheskogo instituta (Chair of Electric Transportation at the Moscow Institute of Power Engineering); Kafedra elektrotekhniki Moskovskogo vysshego tekhnicheskogo uchilishcha im. Baumana (Chair of Electrical Engineering at the Moscow Higher School of Technology imeni Bauman)

SUPMITTED: January 21, 1958

Card 3/4

MARKOV, V.Ye., inzh.; REKUS, G.G., inzh.; CHIRKOV, M.T., inzh.; BOGOLEPOV, K.G., inzh.; NEYMAN, B.S.

Electric pulley block with planetary gear. Mekh.i sots.sel'khoz.  
17 no.7:50-51 '59. (MIRA 13:4)

1. Moskovskoye vyssheye tekhnicheskoye uchilishche im. Baumana  
(for Markov, Rekus, Chirkov) 2. Elektromekhanicheskiy zavod  
Moskovskogo sovnarkhoza (for Boglepov, Neyman).  
(Pulleys)

MARKOV, V.Ye., inzh.; REKUS, G.G., inzh.; CHIRKOV, M.T., inzh.; BOGOLEPOV, K.G., inzh.; NEYMAN, B.S., inzh.

EPL-6 electric pump with immersed electric engine. Mekh. i elek. sots. sel'khoz. 17 no.2:45-46 '59. (MIRA 12:6)

1. Moskovskoye vyssheye tekhnicheskoye uchilishche im. Baumana (for Markov, Rekus, Chirkov). 2. Moskovskiy elektromekhanicheskiy zavod Ministerstva sel'skogo khozyaystva RSFSR (for Bogolepov, Neyman).  
(Pumping machinery)

NEKRASOV, O.A.; REKUS, G.G.

Starting circuit for an asynchronous capacitor motor. Nauch.dokl.  
vys.shkoly; elekromekh. i avtom. no.1:148-157 '58. (MIRA 11:11)  
(Electric motors, Induction)

REKUS, G.G., inzh.

Conditions for symmetrical performance of a capacitor motor.  
Elektrichestvo no.8:51-54 Ag '60. (MIRA 13:8)

1. Moskovskoye vyssheye tekhnicheskoye uchilishche.  
(Electric motors, Induction)

FROLOV, S.; VARVARIN, N.; REKUSHIN, A.; MASIOV, L.

Developing documentation for standard technical norms. Sots. trud  
5 no.9:78-84 S '60. (MIRA 13:10)  
(Shipbuilding--Production standards)

KOSTIN, V.A., inzh.; VARVARIN, N.N., inzh.; REKUSHIN, A.N., inzh.

Reduction of labor necessary for shipbuilding at the "Krasnoe Sormovo" Shipyard. Sudostroenie 25 no.1:69-71 Ja '59.(MIRA 12:3)  
(Gorkiy Province--Shipbuilding)

21/98 Primeneniye v Bor'be s sel'skokhozyaistvennymi vreditelyami i geksakhlorana.  
Sel. Khoz-vo. Tadzhikistana, 1949, No. 4, c. 35-38.

Sc: LITMIS 10. 35, 1949

REKUTIN, V. F.

36762. Rezhul'taty Primeneniya Preparatov. DDT (i) Teksakhlorana v Bor'be  
Vreditelyami v Tadzhikistane. Soobshch. Tadzh. Filiala Akad. nauk SSSR, vyp.  
18, 1949, c. 29-31

SO: Letopis' Zhurnal'ynkh Statey, Vol. 50, Moskva, 1949

TROJANOWSKI, Andrzej; REKWART, Stefan; PRASZALOWICZ, Bronislaw; NASILOWSKI,  
Wieslaw; OLESINSKI, Wladyslaw

Surgical problems in splenectomy. Polskie arch. med. wewn. 29 no.3:  
321-326 1959.

Z Oddzialu Chirurgicznego Instytutu Hematologii w Warszawie Kierownik:  
doc. dr med. A. Trojanowski. Adres autora: Warszawa, ul. Chocimska 5.  
Instytut Hematologii.

(SPLEEN, surgery,  
excis., surg. aspects (Pol))

REKWART, Stefan; MASILOWSKI, Wieslaw; OLESINSKI, Wladyslaw; PRASZALOWICZ,  
Bronislaw; TROJANOWSKI, Andrzej

Experiences with splenectomy in hematological indications. Polskie  
arch. med. wewn. 29 no.3:355-360 1959.

1. z Oddzialu Chirurgicznego Instytut Hematologii w Warszawie Dyrektor:  
doc. dr med. A. Trojanowski. Adres sytira: Warszawa, ul. Chocimska 5.  
Instytut Hematologii

(SPLEEN, surgery,  
excis. in bleed dis. (Pol))

(BLOOD DISEASES, surgery,  
splenectomy (Pol))

CZAYKOWSKI, J.; REKWART, S.; ROEFLER, W.; TROJANOWSKI, A.;  
ZAWISLAK, J.

Clinical results of the use of dextran produced in Poland  
(poliglukan). Polskie arch. med. wewn. 26 no.12:1939-  
1942 1956.

1. Z Kliniki Chirurgicznej Instytutu Hematologii Dyrektor:  
doc. dr. med. A. Trojanowski. Warszawa, ul. Chocimska 5.  
Instytut Hematologii.

(DEXTRAN, ther. use  
comparison of Polish prep. with foreign products (Pol))

REKWART, Stefan.; ROEFLER, Włodzimierz.

Clinical observations on the prophylaxis and treatment of post-operative shock by transfusions of different quantities of blood and blood substitutes. Polski tygod. lek. 12 no.14:506-510 1 Apr '57.

1. Z Kliniki Chirurgicznej Instytutu Hematologii: dyrektor: doc. dr med. Andrzej Trojanowski. Warszawa, ul Chocimska 5, Instytut Hematologii.

(SHOCK, prev. & control

blood transfusion & plasma substitutes in prev. & ther.  
of postop. shock (Pol))

(POSTOPERATIVE CARE

same

(BLOOD TRANSFUSION, in various dis.  
postop. shock (Pol))

(PLASMA SUBSTITUTES, ther. use  
prev. & ther. of postop. shock (Pol))

REKWART, Stefan

Blood transfusion in surgery and obstetrics. Polski tygod. lek.  
12 no.22:842-847 27 May 57.

1. Z Oddzialu Chirurgicznego Instytutu Hematologii w Warszawie:  
Dyrektor Instytutu i Ordynator Oddzialu: doc. dr. med. A. Trojanowski.

(BLOOD TRANSFUSION,

in obst. & surg., review (Pol))

(OBSTETRICS,

blood transiusion in review (Pol))

(SURGERY, OPERATIVE,

same))

REKWART, Stefan; ROEFLER, Włodzimierz

Prevention of shock in surgical interventions. Polski przegl.  
chir. 28 no.8:851-852 Aug 56.

1. Z Klinicznego Oddzialu Chirurgicznego Instytutu Hematologii  
w Warszawie. Dyrektor: doc. dr. Trojanowski. Warszawa, ul.  
Chocimska 5 (Instytut Hematologii).  
(SHOCK, prevention and control,  
in surg. (Pol))

REKWIROWICZ, Walerian, mgr inż.

Production reserves in the concrete industry. Przegl techn 36  
no.8:3 21 F '65.

REKYAVICHUS, P.I. [Rekevicius, P.I.]

Rotary drum for making reinforcing frames of reinforced concrete rings. Suggested by P.I. Rekevicius. Rats. predl. no. 41:5 '59.  
(MIRA 14:1)

(Reinforced concrete)

REL', L.M., podpolkovnik meditsinskoy sluzhby

Indications for the use of drug-induced exclusion of the accommodation  
in the practice of military medical expertise. Voen.-med.zhur. no.8;  
57-59 '64. (MIRA 18:5)

REL', L.H., podpolkovnik meditsinskoy sluzhby

Drug-induced paralysis of accommodation in determining re-  
fraction. Voen.med.zhur. no.3:84-85 '59. (MIRA 12:6)  
(EYE--ACCOMMODATION AND REFRACTION)

1. POLYAK, B. L., PROF.; REL', I. M.
2. USSR (600)
4. Glaucoma
7. Trepanocyclodialysis in glaucoma., Vest. oft., 31, no. 6, 1952.
9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

REL', L.M.

Hammerless method of dacryocystorhinostomy. Vest. oft. 70 no.1:24-25  
Ja-F '57 (MIRA 10:5)

(LACRIMAL APPARATUS, surg.  
dacryocystorhinostomy, hammerless method)(Bus)  
(NOSE, surg.  
same)

POLYAK, B.L.;REL', L.M.

Trepanocyclodialysis in glaucoma. Vest. oft., Moakva 31 no.6:11-17  
Nov-Dec 1952. (CIML 23:4)

1. Professor for Polyak. 2. Military Medical Academy imeni S. M. Kirov.

RELEDA, R.V., starshiy leytenant meditsinskoy sluzhby

Novocaine block for treating dry callus. Voen.-med.zhur. no.10:73  
0 '56. (MIRA 10:3)

(NOVOCAIN) (CALLUS)

MEHL, F.

MELIKI, L. Investigation of the reaction of decomposition of diazotizing salt of benzidine in dyeing developed for thread and continuous fiber. p. 214. MAGYAR TEXTILIZSOKA. Budapest. Vol. 11, no. 6, June 1955.

MEHL, F. East European Accessions List (EAL) LT. Vol. 5, No. 6, June 1955.

RELETSKYH L.V.  
SMIRNOV, P.V.; RELETSKAYA, L.V.

Etiology and pathogenesis of rheumatism. Zhur.mikrobiol.epid.i immun.  
no.7:67-72 J1 '54. (MIRA 7:9)  
(RHEUMATISM, bacteriology)

RÉTHA TI L

RÉTHA TI L

See

## HUNG.

67. Correlation between the ground-water table and soil deformation — L. Réthai. (*Hidrological Köröny* — Vol. 31, 1951, No. 3-4, pp. 129-139, 12 figs.)

The stability of structures is greatly influenced by the ground-water table. To demonstrate the effect of this influence it is expedient to apply the three-dimensional stress theory instead of the theory of the conventional compressive strain. The comparison of laboratory compressive tests and that of test loadings applied for the determination of the carrying capacity of the soil verify that the deformation phenomena follow the three-dimensional stress law. For the determination of correlations the author made use of those theorems of soil mechanics which establish the connection between the actual stress and the neutral stress. In foundation work it must be remembered that the optimum relationship between ground surface and water table prevents when the buoyancy due to ground water is not detri-

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L. Rethnili

mental to soil grains and cannot be expected to reduce the apparent cohesion and stress. This optimum ground-water level is 0.1 to 15 m below ground surface for granular soils. Lateral stresses should also be considered if the relative settlement of several foundations is examined. The highest ground-water level is the most unfavourable for foundations; therefore, it must always be predetermined so that the security factor corresponding to the breaking

stress can be reduced. The breaking stress decreases when ground water is under pressure; the soil has no cohesion in this case, consequently, the laying of foundations on such soil must be avoided. At the highest ground-water level it is not practical to choose the limiting stress from the standard specifications because in this case the carrying capacity of the soil cannot be exploited to the maximum within the limits of safety.

3/2

RELICOVA, J.

The woman health worker plays a part in railroad sanitation. p.22.(Zeleznice, Praha, Vol. 4, no. 1, Jan. 1954)

S0: Monthly list of East European Accessions (EEAL), LC Vol 4, No. 6, June 1955, Uncl

PAPP, M.; RELIKH, P.; RUSNYAK, I.; TERE, I.

Ultrastructure of the central lacteal sinus of the intestinal villus. Arkh. anat., hist. i embr. 42 no.6:24-29 Je '62.  
(MIRA 15:6)

1. Otdel patologicheskoy fiziologii i morfologii Instituta eksperimental'noy meditsiny Vengerskoy akademii nauk (dir. - akademik Ishtvan Rusnyak) i Instituta histologii i embriologii Budapeshtskogo meditsinskogo universiteta (dir. - akademik Imre Tere). Adres avtorov: Vengriya, Budapesht, Institut eksperimental'noy meditsiny Vengerskoy AN i Institut histologii i embriologii Budapeshtskogo meditsinskogo universiteta. Otdel patologicheskoy fiziologii i morfologii.

(INTESTINES)  
(ELECTRON MICROSCOPY)

MELINA, A. A.

Za Maksimal'noye Ispol'zovaniye Trubooprokatnykh Stanov (For the maximum utilization of tube rolling mills; from the work experience of the Stakhanovite Tube-rolling workers of the Stalin New Pipe Plant, by) A. A. Melina i V. I. TUZYAEV. Moskva, Metallurgizdat, 1952.

100 p. Illus., Diagrs., Forts., Tables.

S. O. N/5

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1. RFI IMA, A. A.
2. USSR (600)
4. Technology
7. For the maximum utilization of tube-rolling machines, Moskva, Metallurgizdat, 1952.
9. Monthly List of Russian Accessions, Library of Congress, April, 1953, Uncl.

RELINA, A.A.

Za maksimal'noe ispol'zovanie trubo-prokatnykh stanov (For the maximum utilization of tube-rolling machines). Moskva, Metallurgizdat, 1952, 100 p.

SO: Monthly List of Russian Accessions, Vol. 6, No. 1, April 1953

RELJA, Zeljko, ing. (Sibenik, Borisa Kidroca 80/a)

Properties, application, and the problems of the production of aluminum foil. Tehnika Jug 16 no.12:2148-2160 '61.

1. Tvornica lakih metala "Boris Kidric", Sibenik.

Z/017/60/C49/011/002/013  
E073/E535

AUTHOR: Reljic, Jaksa, Engineer

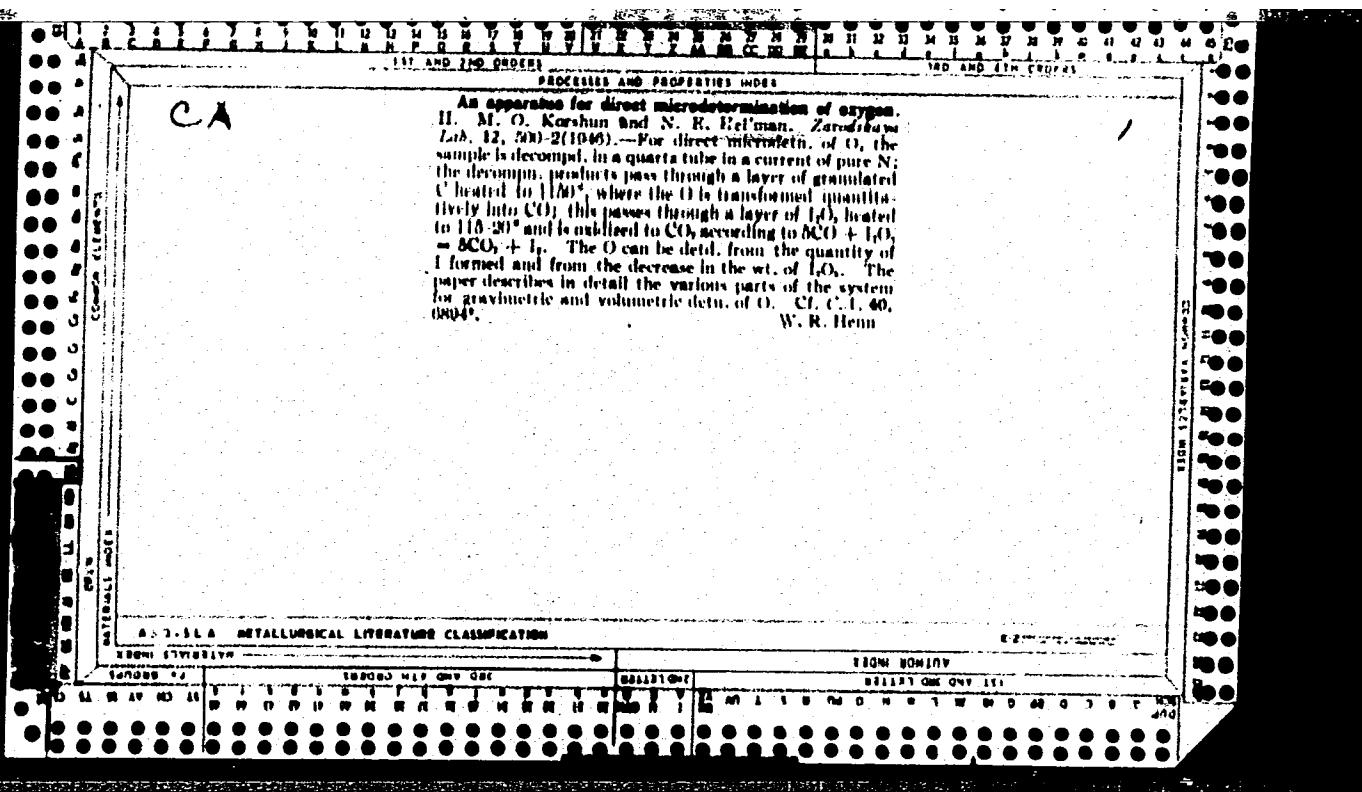
TITLE: // Ozone Manufacture //

PERIODICAL: Elektrotechnicky obzor, 1960, Vol. 49, No.11, p.Z40

TEXT: This is an annotation of the research report

VUSE-Z 727, 36 pages, 10 figures and 2 photographs.  
The properties of ozone and of its formation are analysed and  
its industrial applications are described. A substantial  
part of the report deals with the theory of the discharge in the  
ozonizer, determination of the instant of formation and extinction  
of the discharge and determination of the principle of discharges  
per cycle. Various types of produced ozonizers are described,  
e.g. flat, bushing with an extended discharge zone and tubular.  
The carried out measurements have shown that efficiencies have  
been achieved which equal those described in literature. Experi-  
mental equipment will now be used on a pilot plant scale and on  
the basis of gained experience larger units will be built.

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VADASZ, Karoly, dr.; RELOVSZKY, Erzsebet, dr.

Amputation in the treatment of Kaposi's sarcoma of the lower extremity. Orv.hetil. 101 no.47:1682-1683 20 N'60.

1. Szeged Varosi Tanacs Korhaza, Baleseti Sebeszeti Osztaly.  
(LEG neopl)  
(SARCOMA KAPOSI'S surg)  
(AMPUTATION)

VASIL'YEV, N.S.; KASIMOV, V.I.; KALININ, G.A.; KUVAKIN, V.P.; MEDVEDEV, A.P.;  
FAYVILEVICH, Ya.A.; KHRIPUNOV, V.P.; YERMAKOV, D.A., redaktor;  
MEMOV, A.P., redaktor; OSTROVSKIY, Ya.M., redaktor; RUL'SKAYA, D.D.,  
redaktor; FRIDKIN, A.M., tekhnicheskiy redaktor

[Experience in operating the Kashira Hydroelectric Power Station]  
Opyt ekspluatatsii Kashirskoi GRES. Moskva, Gos. energ. izd-vo,  
1956. 179 p.  
(Kashira Hydroelectric Power Station)

REL'TOV, B. E., AND NOVITSKAYA, N. A.

Osmotic Phenomena in Bound Grounds During Their Nonuniform Salting  
Izv. Vses. n.-i. in-ta gidrotekhn., 51, 1954, pp 94-122

The authors expound the results of a preliminary experimental investigation into the characteristic phenomena of osmotic filtration and osmotic deformation of bound grounds. When "incomplete" semipermeable partitions are employed the osmotic phenomenon is calculated according to the formula of Van't Hoff with the introduction of the coefficient of semipermeability phi. He shows that osmotic phenomenon in nonuniformly salted grounds can influence filtration and cause deformation of these grounds at the foundation of hydrotechnical installations, in the river beds, etc. (RZhGeol, no 3, 1955)

SO: Sum. No. 639, 2 Sep 55

SOV/124 58 10 11635

Translation from Referativnyy zhurnal, Mekhanika, 1958, Nr 10, p 134 (USSR)

AUTHORS Denisov, N. Ya., Reletov, B. F.

TITLE Elastic and Structural Deformations of Clay Soils (Uprugkiye i strukturnyye deformatsii glinistykh porod)

PERIODICAL: V sh.: Materialy k 4-mu Mezhdunar. kongressu po mekhan. gruntov  
i fundamentostr. Moscow, AN SSSR, 1957, pp 9-19

ABSTRACT: The mechanics of clay soil packing is investigated in the light of structural deformation resulting from the appearance of microslip. It is pointed out that the time element in structural deformation is independent of the presence or absence of water in the pores of the soil. A VNIIG (All-Union Scientific Research Institute of Hydro-Engineering) device employed for kinetic study of structural-mechanical properties of clay soils is described. This device operates on the principle of the decay of torsional vibrations. Results are given for some experiments performed for the determination of the shear modulus for different pastes under different load conditions. The problem of settling of loess soils is investigated in connection with the strength of their characteristic internal cementing cohesion. Z. V. Maslova-Pil'gunova

Card 1/1

1. RYKLIS, A. G.; REL'MAN, R. P.
2. USSR (600)
4. Thiamine
7. Synthesis of 2-aminothiazole, Ukr. khim. zhur., 18, No. 1, 1952.
9. Monthly List of Russian Accessions, Library of Congress, April, 1953, Uncr.

REL'TOV, B. F., starshiy nauchnyy sotrudnik, kand.tekhn.nauk;  
GORELIK, L.V., inzh.

Electrometric method of studying dynamic effects on sand  
saturated with water. Izv. VNIIG 60:178-180 '58.  
(MIRA 13:6)

(Soil mechanics)  
(Hydraulic engineering—Research)

REL'TOV, B. F.

26331 O vneshnem kapil lyarhom davlenii v vodonasyshchennykh gruntakh.  
Izvestiya vsesoyuz. Nauch-issled. In-ta gidrotekhniki im. Vedeneeva, T.  
XXXIX, 1949, s. 42-60—Bibliogr: 6 nazv.

SO: LETOPIS' NO. 35, 1949

REL'TOV, B.F., starshiy nauchnyy sotrudnik, kandidat tekhnicheskikh nauk.

Hydrostatic counterpressure and suspension in bound water saturated  
soils. Izv. VNIIG 56:13-17 '56. (MLRA 10:8)  
(Soil mechanics)

NIKOLAYEV, Boris Aleksandrovich, kand.tekhn.nauk; REL'TOV, B.F., kand. tekhn.nauk, nauchnyy red.; ROTENBERG, A.S., red.izd-va; VORONSKAYA, L.V., tekhn.red.

[Using electroosmosis in pile driving] Pogruzhenie svai s pomoshch'iu elektroosmosa. Leningrad. Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1960. 94 p. (MIRA 13:5)

(Electroosmosis) (Piling (Civil engineering))

SOV/124-57-9-10691

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 9, 123 (USSR)

AUTHOR: Re'ltov, B. F.

TITLE: On the Hydrostatic Counterpressure and Suspension of Water-saturated Cohesive Soils (K voprosu o gidrostaticeskem protivodavlenii i vzveshivanii svyaznykh vodonasyshchennykh gruntov)

PERIODICAL: Izv. Vses. n.-i. in-ta gidrotekhn., 1956, Vol 56, pp 13-17

ABSTRACT: The author first divides the various cohesive (clayey) soils into soils "not endowed with cementational cohesion or cohesive hardening (according to N. Ya. Denisov)" and soils "endowed with such forms of cohesion", and then points to the necessity for an experimental verification of the propositions relative to the magnitudes of the contact areas of either type of cohesive soil by means of a correlation of the magnitudes of their respective specific surfaces. He proposes the use of the "tagged"-atoms absorption method. The coefficients of the hydrostatic counterpressure and suspension should equal unity for the first group of soils and approximate that value very closely for the second group. It is noted that the conclusions founded on the tests of G. M. Mariupol'skiy (Sb. trudov n.-i.

Card 1/2

SOV/124-57-9-10691

On the Hydrostatic Counterpressure and Suspension of Water-saturated (cont.)

in-ta po osnovaniyam i fundamentam, 1950, Nr 15) "are formally not applicable to hydraulic engineering structures which are in a state of quiescent stability".

Bibliography: 7 references.

V. V. Fandeyev

Card 2/2

SOV/124-57-9-10692

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 9, p 123 (USSR)

AUTHORS: Bol'shakova, Yu. S., Rel'tov, B. F.

TITLE: On the Coefficient of Electro-osmotic Seepage (O koeffitsiyente elektroosmoticheskoy fil'tratsii)

PERIODICAL: Izv. Vses. n.-i. in-ta gidrotekhn., 1956, Vol 56, pp 36-47

ABSTRACT: A survey of investigations dealing with the determination of the coefficient of electro-osmotic seepage. The authors question Casagrande's [ Leo C.; Transl. Ed. Note] proposition that the coefficient of electro-osmotic seepage for various soils be taken as  $5 \times 10^{-5} \text{ cm}^2/\text{sec v}$ . A number of investigations performed by the authors in accordance with a specially developed technique have demonstrated that, depending on the porosity, structure, and composition of the soils, the coefficient of electro-osmotic seepage may vary from  $2.8 \times 10^{-6}$  to  $1.13 \times 10^{-4} \text{ cm}^2/\text{sec v}$ . Bibliography: 11 references.

A. N.

Card 1/1

SOV/124-57-9-10683

Translation from: Referativnyy zhurnal. Mekhanika, 1958, Nr 9, p 122 (USSR)

AUTHOR: Rel'tov, B. F.

TITLE: The Influence of Structure-forming Processes on the Water  
Permeability of Soils (Vliyaniye strukturoobrazovatel'nykh  
protsessov na vodopronitsayemost' gruntov)

PERIODICAL: V sb.: 15-ya nauchn. konferentsiya Leningr. inzh.-stroit. in-ta,  
Leningrad, 1957, pp 88-89

ABSTRACT: Bibliographic entry

Card 1/1

RERL'TOV, B.F., starshiy nauchn.sotrudnik, kand. tekhn.nauk

Reply to N.K. Rabotnov's objections in reference to the article  
"Weighing pressure of water on compact ground." Izv. VNIIG 46:  
215-216 '51. (MIRA 12:5)

(Hydrostatics)

REL'TOV, B.F., kand. tekhn. nauk; YERYKHOV, B.P., kand. tekhn. nauk

Industrial experience with electroosmosis used to increase the  
bearing capacity of hollow cylindrical piles. Gidr. stroi. 33  
no.2:51-52 F '63. (MIRA 16:4)

(Piling(Civil engineering))  
(Electroosmosis)

PETRENKO, G.M., kand. tekhn. nauk, dots., otv. red.; BEZRUK, V.M., doktor geol.-miner. nauk, prof., red.; DRANNIKOV, A.M., doktor geol.-min. nauk, prof., red.; LITVINOV, I.M., red.; REL'TOV, B.F., kand. tekhn. nauk, red.; RZHANITSYN, B.A., doktor tekhn. nauk, prof., red.; DMITRIYEVA, I.K., red.

[Materials of the Conference on the Stabilization and Packing of Soils] Materialy Soveshchaniia po zakrepleniiu i uplotneniiu gruntov. Kiev, Akad. stroit. i arkhit. USSR, 1962. 462 p. (MIRA 16:6)

1. Soveshchaniye po zakrepleniyu i uplotneniyu gruntov, Kiiev, 1962. 2. Gosudarstvennyy vsesoyuznyy dorozhnyy nauchno-issledovatel'skiy institut (for Bezruk). 3. Kiyevskiy inzheernomo-stroitel'nyy institut (for Drannikov, Petrenko). 4. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrotekhniki (for Rel'tov). 5. Nauchno-issledovatel'skiy institut osnovaniy Akademii stroitel'stva i arkhitektury SSSR (for Rzhanitsyn).  
(Soil stabilization)

REL'TOV, B.F., starshiy nauchnyy sotrudnik, kand.tekhn.nauk;  
NOVITSKAYA, N.A., inzh.

Osmotic phenomena in cohesive soils associated with nonuniform  
salinization. Izv.VNIIG 51:94-122 '54. (MIRA 12:5)  
(Osmosis) (Alkali lands)

BOL'SHAKOVA, Yu.S., starshiy inzhener; REL'TOV, B.F., starshiy nauchnyy  
sotrudnik, kandidat tekhnicheskikh

On the coefficient of electroosmotic seepage. Izv. VNIIG 56:36-47  
'56. (MIRA 10:8)  
(Soil percolation)

REL'TOV, B.F., starshiy nauchnyy sotrudnik, kandidat tekhnicheskikh nauk.

Suspended water pressure on bound soil; statement of the problem.  
(MLRA 10:2)

Izv. VNIIG 41:18-32 '49.

(Soil mechanics)

REL'TOV, B.F., starshiy nauchnyy sotrudnik, kandidat tekhnicheskikh nauk.

Subsidence phenomena in bound water-saturated soils. Izv. VNIIG  
no.33:5-24 '47. (MLRA 10:2)  
(Soil mechanics)

KRAYEV, G.A.; REL'TOV, B.F.

Attenuation of elastic waves in fracture models. Uch.zap. LGU  
no.286:125-129 '60. (MIRA 14:3)  
(Elastic waves)

15-57-3-3735

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 3,  
p 180 (USSR)

AUTHORS: Rel'tov, B.F., Novitskaya, N.A., Bel'shakova, Yu.S.

TITLE: Further Experimental Studies of Osmotic Phenomena in  
Coherent Soils (Dal'neyshiye eksperimental'nyye issle-  
dovaniya osmoticheskikh yavleniy v svyaznykh gruztakh)

PERIODICAL: Izv. Vses. n.-i. in-ta gidrotekhn., 1955, Nr 53,  
pp 147-164

ABSTRACT: As a result of the difference in osmotic pressures  
between soil solution and water at the contact of  
fresh ground and salty water, there occurs a packing  
of the soil because of extraction of water from it.  
At the contact of salty ground with fresh water, water  
seeps into the ground and causes it to swell. The  
difference in osmotic pressures is expressed by the  
relation  $P_1 - P_2 = \Delta P = \gamma h \cdot 10 RT(c_1 - c_2)$  where  $h$   
is the height of a water column equivalent to the  
osmotic pressure,  $c_1$  and  $c_2$  are the concentrations of

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15-57-3-3735

Further Experimental Studies of Osmotic Phenomena (Cont.)

salt in the soil solutions and in the water medium, and  $\phi$  is the coefficient of semipermeability. And

$$h = \frac{1\phi RT}{\gamma} (c_1 - c_2) = \frac{k_{osm}}{k} (c_1 - c_2),$$

where  $k_{osm}/k$  is the osmotic activity of the soil. Osmotic deformations depend on the variation in osmotic pressures and grow larger with an increase in the difference, i.e., with an increase in the osmotic activity in the soil and in the difference in concentrations. Experimental investigations were made with the instrument described earlier (RZh Geo, 1956, 3604) on samples of Oglanglinskiy bentonite and Upper Cambrian clays of the Leningrad region. A solution of an electrolyte was used which would have a minimal effect on the adsorption equilibrium of the soil-solution system. With low concentrations of electrolyte a filtration was observed toward the lowest concentration of salt. This phenomenon cannot be explained from

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15-57-3-3735

Further Experimental Studies of Osmotic Phenomena (Cont.)

the point of view of electrokinetic phenomena, nor from that of capillary osmosis as described by B. R. Deryagin (Kolloid. zh., 1947, Nr 9, p 5). Investigations have shown that the concentration of salt  $K_{osm}$  does not change more than one order for clays of different mineralogical composition over a wide range. The coefficient of gravitational filtration in these samples varies within a range of four orders. The Oglanglinskiy bentonite has the highest osmotic activity, the Cambrian clays have less, and the Glukhovetskiy kaolin has least. Activity increases with decrease in porosity and also varies with ionic exchange. The effect of osmotic filtration may be used for draining over-consolidated cohesive soils. Laboratory experiments have shown that it is possible to make use of surface drainage. To accomplish this, the surface of an area requiring drainage is drenched with a concentrated solution of electrolyte containing polyvalent cations, such as  $CaCl_2$ . During vertical drainage in individual bore holes, porous ceramic pipes filled with calcium chloride solution are lowered. It is recommended that a shield of bitumen emulsion be used for a cover to

Card 3/4

Further Experimental Studies of Osmotic Phenomena (Cont.) 15-57-3-3735

prevent swelling of salty ground in contact with fresh water.  
Card 4/4

L. I. L.

REL'TOV, B.F., starshiy nauchnyy sotrudnik, kandidat tekhnicheskikh nauk.

Subsidence phenomena in bound water-saturated soils conditioned by capillary movement of water. Izv.VNIIG no.33:25-31 '47. (MLRA 10:2)  
(Soil mechanics)

REL'TOV, B.F., starshiy nauchnyy sotrudnik, kandidat tekhnicheskikh nauk.

Letter to the editors of "Izvestiia VNIIG." Izv. VNIIG no. 45:166  
'51. (MLRA 10:3)

(Soil mechanics)

SHABROV, N. N., Head of Bureau, Institute for Physical and Chemical Investigations of Soils of the All-Union Scientific Research Institute of Hydrotechnics, Leningrad and MIRISOV, N. V., Prof., Chief of the Chair of Engineering Geology, Moscow Institute of Civil Engineering

"Elastic and Structural Deformations of Clayey Soils," a paper submitted at the 4th International Conference of the International Society of Soil Mechanics and Foundation Engineering, London, 12-24 Aug 77.

REL'TOV, B.F., starshiy nauchnyy sotrudnik, kandidat tekhnicheskikh nauk.

External capillary pressure in water-saturated soils. Izv. VNIIG  
no.39:42-60 '49. (MIRA 10:3)  
(Capillarity)

IZMAYLOVA, N.A., inzh.; KRJCHEVSKIY, I.Ye.; RUL'TOV, B.F., kand. tekhn.  
nauk (Leningrad)

Injuries to polyethylene screens during their installations.  
Gidr. i mel. 17 no.7:38-42 J1 '65. (MIRA 18:12)

REL'TOV, B. F.

Issledovaniye Fil'tratsii v Usloviyakh Prostranstvennoy Zaiachi Po Metodu Elektro-Gidrodinamicheskikh Analogiy Akad. N. N. Pavlovskogo. Izv. NII Gidrotekhniki, 15 (1935), 1-18.

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Markushevich, A. I.,  
Rashevskiy, P. K.  
Moscow - Leningrad, 1948.

RELUGA, J.

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surveying tools and apparatus. p. 470. MECHANIK, Warazawa.  
Vol. 28, no. 12, Dec. 1955.

SOURCE: East European Accession List (EEAL) Library of Congress  
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SILDE, O.; RELVIK, H.

[Elements of vector analysis; an outline] Vektoranalüüs  
algmed; konspekt. Tallinna Polütehniline In-t, 1963. 77 p.  
[In Estonian] (MIRA 17:7)

NAGY, Janos; REM, Lajos; KOVESDI, Antal; CSERVENKA, Janos; BEREGI, Gabor;  
KOVARI, Laszlo; MAHNER, Sandor

Domestic news. Bany lap 95 no.10:697-699 0 '62.

RAMADIN, V. P.

(2) ✓ 830. PROSPECTS FOR FURNACES WITH LIQUID SLAG REMOVAL. Harshuk, Yu. I.  
and Ramdin, V.P. (Energiya, Moscow, Dec. 1953, Vol. 21,  
3-8).--Many industrial furnaces in Russia fired with various types of coal  
are being operated with maximum slag removal. Greater purity of the gases  
and the possibility of at least doubling the thermal loading in the  
combustion chamber by removing slag from the heating surface indicate the  
advantage of using furnaces with maximum slag removal in 250 and 450 tons/h  
boilers. The liquid slag may be used for technological purposes and the slag  
heat for air heating up to 400-600°C. A chart shows the specific power  
consumption for internal needs in furnaces equipped for liquid and dry slag  
removal. D.E.A.

REMAN, Andrzej

Application of powder electrodes in studies on the flotation process. II. Studies on the reaction of collection, activation, and depression with the use of powder electrodes. Przem chem 41 nc.7:390-393 Jl '62.

1. Zaklad Chemii Technicznej, Politechnika, Krakow.

REMAN, R. E.

"Melamine Phosphates," Sil. Vol'fkovich, E. E. Zusser, and R. E.  
Reman, (SEE: Inst. Insect/Fungi. in Ya. V. Samoylov)

SO: U-237/49, 8 April 1949

BELOUSOV, V.F., inzh.; REMARCHUK, V.A., inzh.

Unification of the pressure mechanisms of the SE-3 and EKG-4  
excavators. Mekh.stroi. 19 no.3:20-21 Mr '62. (MIRA 15:3)  
(Excavating machinery)

REMARHUK, V.A.; ZHILIN, S.N.; GOLUBEV, V.A.; PAZUSHCHAN, A.L.;  
ASHMARIN, V.Ya.; CHACHKIS, D.G.

[Standards for the repair of excavators and crushing and  
sorting equipment; a handbook] Normativy na remont ekska-  
vatorov i drobil'no-sortirovochnogo oborudovaniia; spra-  
vochnik. Moskva, Nedra, 1965. 190 p. (MIRA 18:7)

1. Nauchno-issledovatel'skiy i proyektno-konstruktorskii  
institut po dobyche poleznykh iskopayemykh otkrytym spo-  
sobom. 2. Laboratoriya mekhanizatsii vspomogatel'nykh  
protsessov remontnykh i takelazhnykh rabot Nauchno-  
issledovatel'skogo i proyektno-konstruktorskogo instituta  
po dobyche poleznykh iskopayemykh otkrytym sposobom.

BERLOV G.A.; REMARCHUK, V.S.

Clinical and morphological aspects of mesothelioma of the epi-didymis and spermatic cord. Urologia no.5:65-67 '62. (MIRA 15:12)

1. Iz kafedry patologicheskoy anatomii (zav. - prof. Ye.A. Pal'chevskiy) L'vovskogo meditsinskogo instituta.  
(EPIDIDYMIS--TUMORS) (SPERMATIC CORD --TUMORS)

SOURCE CODE: UR/0367/66/004/004/0678/0682

ACC NR: AP7008881

AUTHOR: Gritsyna, V. T.--Gricyna, V. T.; Klyucharev, A. P.; Remayev, V. V.--  
Remnev, V. V.

ORG: none

TITLE: Short-period isomers La<sup>137m</sup>, Lu<sup>172m</sup>, and Ir<sup>187m</sup>

SOURCE: Yadernaya fizika, v. 4, no. 4, 1966, 678-682

TOPIC TAGS: isomer, gamma quantum, lanthanum, lutecium, iridium

SUB CODE: 20

ABSTRACT: The results of the investigation of two new short-period isomers La<sup>137m</sup> and Lu<sup>172m</sup> and a previously found (V. V. Remayev, V. T. Gritsyna, Yu. S. Korda; ZhETF, 44, 1147, 1963) isomer Ir<sup>187m</sup> are presented. The excited states of the lanthanum and lutecium nuclei were obtained in the irradiation of barium and ytterbium targets by protons. The isomer state La<sup>137m</sup> decays with a half-life  $12 \pm 4$  msec, emitting  $230 \pm 10$  keV and approximately 450 keV  $\gamma$ -quanta. The half-life of the Lu<sup>172m</sup> isomer is  $450 \pm 20$   $\mu$ sec and its  $\gamma$ -ray energy spectrum consists of lutecium x-rays and a  $68 \pm 5$  keV  $\gamma$ -transition. An additional  $\gamma$ -line with the energy  $168 \pm 5$  keV was found in the  $\gamma$ -spectrum of the Ir<sup>187m</sup> isomer. Decay schemes are suggested for all three isomers. The isomer state of the La<sup>137</sup> nucleus should probably be interpreted as a three-particle one. Further, an isomer activity with a half-life 0.75 msec and  $\gamma$ -ray energies 180, 280, and approximately 400 keV was found in the irradiation of an Yb<sup>174</sup> isotope target by fast protons. Orig. art. has: 5 figures and 1 formula. [Based on authors' Eng. abst.] [JPRS: 39,658]

UDC: none

0429 1693

Card 1/1

MOROZOV, A.M.; REMAYEV, V.V.; YAMPOL'SKIY, P.A.

Five new millisecond isomers appearing in nuclear reactions involving  
19.2 Mev protons. Zhur. eksp. i teor. fiz. 39 no.4:973-985 O '60.  
(MIRA 13:11)

1. Institut khimicheskoy fiziki Akademii nauk SSSR i Fiziko-tehnicheskiy institut Akademii nauk Ukrainskoy SSR.  
(Protons) (Nuclear reactions)

S/055/62/043/002/012/355  
B102/3134

AUTHORS: Morozov, A. M., Remayev, V. V.

TITLE: Investigation of the millisecond isomers detected in nuclear reactions involving fast protons

PERIODICAL: Zhurnal experimental'noy i teoreticheskoy fiziki, v.41,  
no. 2(3), 1962, 438-447

TEXT: Irradiation of Ti, Sr, Y, Zr, Te, Hg, Pb, Bi (JINN SSSR, 10), 1955, 1956; ZhETF, 32, 292, 1957) and Ce (ZhETF, 40, 101, 1961) with a pulsed proton beam of the accelerator of the FTI AN USSR (10.2 Mev, 2 pulses per sec,  $\tau \sim 500$  nsec) led to the formation of short-lived isomers. By a method described in ZhETF, 33, 973, 1960 half-life, radiation energy and production reaction were determined more accurately than in the above-mentioned papers. An analysis of the results shows that the formation of a compound nucleus is most probable. There are 6 figures and 1 table.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics of the Academy of Sciences USSR). Fiziko-tekhnicheskiy institut Akademii nauk Ukrainskoy SSR (Physical-technical Institute of the Academy of Sciences Ukrainskaya SSR)

Card 1/2

Investigation of the Millisecond...

S/056/61/043/002/012/C53  
B102/B104

SUBMITTED: March 21, 1962

	1	2	3	4	5	6
Ti	$0,16 \pm 0,01$ $0,89 \pm 0,01$	$1,0 \pm 0,1$	$60 \pm 15$	0,2	$_{42}\text{Ti}^{40}(p,n)V^{46m}$	
SrCO <sub>3</sub>	$0,25 \pm 0,01$ $0,46 \pm 0,01$	$14,5 \pm 0,7$	$8 \pm 08$	0,5	$_{38}\text{Sr}^{88}(p,n)Y^{88m}$	
Y <sub>2</sub> O <sub>3</sub>	$0,24 \pm 0,01$ $0,45 \pm 0,01$	$13,5 \pm 0,5$	—	—	$_{42}\text{Y}^{89}(p,pn)Y^{88m}$	
Zr	$0,26 \pm 0,01$	$10,0 \pm 1,0$	$60 \pm 6$	0,3	$_{43}\text{Zr}^{90}(p,n)\text{Nb}^{95m}$	
Ta	$0,24 \pm 0,01^{(*)}$ $0,37 \pm 0,01^{(*)}$	$5,5 \pm 0,3^{(*)}$	$320^{+30}_{-100}$	$\ll 1$	$_{73}\text{Ta}^{181}(p,2n)W^{180m}$	
HgO	$0,37 \pm 0,01$ $0,60 \pm 0,01$	$29,0 \pm 0,5$ $1,8 \pm 0,1$	—	1 0,6	—	
Pb	$0,68 \pm 0,01$ $0,91 \pm 0,01$	$2,5 \pm 0,1$	—	0,03*	$_{82}\text{Pb}^{203}(p,n)\text{Bi}^{205m}$	
Bi	$0,69 \pm 0,01$ $0,93 \pm 0,01$	$2,6 \pm 0,1$	—	0,002*	$_{83}\text{Bi}^{209}(p,pn)\text{Bi}^{205m}$	

Legend to Table: (1) target; (2) radiation energy, Mev; (3) half-life, msec;  
 (4) cross section, mb; (5) yield from thick target, relative units;  
 (\*) isomer formation reaction.

Card 2/2

REMYEV, V.V.; GRITSYNA, V.T.; KLYUCHAREV, A.P.

New short-period isomers Nd<sup>140m</sup>, Pm<sup>144m</sup>, Eu<sup>146m</sup>, and Gd<sup>158m</sup>  
[with summary in English]. Zhur. eksp. i teor. fiz. 42 no.2:  
(MIRA 15:2)  
408-415 F '62.

1. Fiziko-tehnicheskiy institut An Ukrainskoy SSR.  
(Isomers)

REMYEV, V.V.; KORDA, Yu.S.; KLYUCHAREV, A.P.; SMIRNOV, A.M.

Decay of some millisecond isomers. Zhur. eksp. i teor.  
fiz. 43 no.5:1649-1652 N '62. (MIRA 15:12)

1. Fiziko-tehnicheskiy institut AN Ukrainskoy SSR.  
(Isomers)  
(Nuclear reactions)

S/089/63/014/003/012/020  
B102/B186.

AUTHORS: Korda, Yu. S., Timoshevskiy, G. F., Remayev, V. V.

TITLE: Photo-efficiency of a NaI(Tl) crystal for non-collimated  
 $\gamma$ -radiation

PERIODICAL: Atomnaya energiya, v. 14, no. 3, 1963, 319 - 320

TEXT: The authors used a direct stochastic method for calculating the photo-efficiency ( $\xi$ ) for a NaI(Tl) crystal ( $\phi = 29$ ,  $h = 15$  mm) hit by a divergent beam of  $\gamma$ -rays ( $60 \text{ kev} \leq E_\gamma \leq 1.5 \text{ Mev}$ ) emitted from a point source (S). Pair production and emission of quanta with  $E_\gamma \leq 40 \text{ kev}$  from the crystal are neglected. The error amounts to 2 %. There is 1 figure..

SUBMITTED: June 27, 1962

Card 1/2

S/089/63/014/003/012/020  
B102/B186

Photo-efficiency of a ...

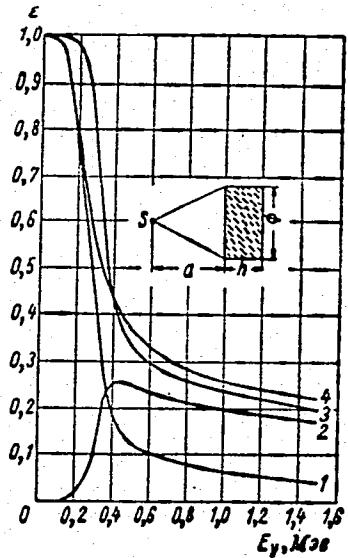


Figure.  $\epsilon$  as a function of  $E_\gamma$  (Mev) for  
 $a = 36$  mm. (1) Photoregistration; (2)  
Compton registration; (3) photo-inter-  
action ( $N_{\text{ph}}/(N_{\text{Compt}} + N_{\text{ph}})$ ); (4) total  
efficiency.

Card 2/2

S/048/63/027/001/040/043  
B108/B180

AUTHORS: Remayev, V. V., Korda, Yu. S., and Klyucharev, A. P.

TITLE: Investigation of isomeric transitions with a half-life of  
 $10^{-4} - 10^{-1}$  sec in even-even nuclei

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya,  
v. 27, no. 1, 1963, 125-131.

TEXT: The multipolarity and the type of isomeric gamma transitions in Ce<sup>138</sup>, Nd<sup>140</sup>, and W<sup>180</sup> nuclei were determined from the total coefficient of internal conversion,  $\alpha$ , which was measured by a scintillation method, thus reducing the problem to the counting of the conversion electrons. In determining the geometry of the detecting apparatus an expression suggested by Nelson and Blechman (cf. Benjamin P. Burtt, Nucleonics, 5, no. 2, 28 (1949)) was used. The conversion electron and isomeric gamma radiation spectra were examined on a single-channel pulse-height analyzer, the background being taken into account at every stage. The results indicate a change in the parity of the states during the transitions in

Card 1/2

S/056/63/044/004/005/044  
B102/B186

AUTHORS: Remayev, V. V., Gritsyna, V. T., Korda, Yu. S.

TITLE: Two new short-lived isomers - Ir<sup>187m</sup> and Ir<sup>189m</sup>

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44,  
no. 4, 1963, 1147 - 1150

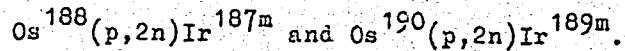
TEXT: The authors continue previous investigations (ZhETF, 39, 973, 1960;  
42, 408, 1962) on the  $\gamma$ -ray spectrum observed on bombarding natural osmium  
(Os<sup>184-192</sup>) by 20-Mev protons. They had discovered an intense  $\gamma$ -radiation  
with  $T_{1/2} = 10^{-2}$  sec and  $E_{\gamma} = 0.320$  Mev. In order to identify this activi-  
ty, specimens enriched in Os<sup>188</sup>, Os<sup>189</sup>, Os<sup>190</sup> or Os<sup>192</sup> (75.4, 71.9, 76.1  
and 98.1%, resp.) were exposed to the 20-Mev proton beam from a linear ac-  
celerator. On comparing the  $\gamma$ -yields it was found that two new isomers must  
exist: one for the Os<sup>188</sup> sample emitting 115-kev gammas and one for Os<sup>190</sup>  
with 120, 180 and 300-kev gammas. Both spectra had a common intense peak  
at 65 kev. The half-lives of the isomers was determined to be  $29 \pm 2$  msec

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Two new short-lived isomers...

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and  $14\pm 1$  msec. From the excitation curves it was concluded that both isomers are produced in  $(p, 2n)$  reactions, i.e. by



For the 115-kev transition the conversion coefficient is  $\alpha_K = 7\pm 2$  and the transition is of the type  $E1+M2$  or  $M2+E3$ . There are 4 figures and 1 table.

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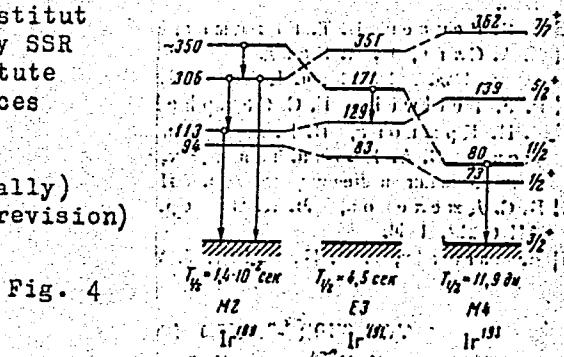


Fig. 4

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EWT(m)/BDS AFFTC/ASD

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AUTHOR: Gritsy\*na, V. T.; Klyucharev, A. P.; Remayev, V. V.; Reshetova, L. N.

TITLE: Ratio of the cross sections for the production of the isomer and ground states of nuclei in the (p,n) reaction at energies from threshold to 20 MeV

SOURCE: Zhurnal eksper. i teor. fiziki, v. 44, no. 6, 1963, 1770-1774

TOPIC TAGS: p-n reaction, cross section, ground state, isomer state, compound nucleus model

ABSTRACT: Measurements are made of the cross sections of the nuclear reactions  $Y^{89}(p,n)Zr^{89m}$ ,  $Y^{89}(p,n)Zr^{89}$ ,  $Pr^{141}(p,n)Nd^{141m}$ ,  $Pr^{141}(p,n)Nd^{141g}$ ,  $Au^{197}(p,n)Hg^{197m}$ , and  $Au^{197}(p,n)Hg^{197g}$ , aimed at investigating their mechanism for incident-particle energies from threshold to 20 MeV. The reaction cross sections were measured by the induced activity method, with the  $(p,n)$  reaction excitation determined by means of foil stacks. The 20 MeV protons were obtained from a linear accelerator. The ratios of the cross sections for the production of the isomer and ground states were determined and were found for the most part in

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